What is claimed is:

1. A method for forming a patterned resist layer comprising:

providing a substrate;

forming over the substrate a blanket resist layer;

exposing, while employing a charged particle beam method susceptible to a proximity effect, the blanket resist layer to form a charged particle beam exposed blanket resist layer having formed therein a contiguous latent pattern, wherein the charged particle beam method employs when forming the contiguous latent pattern a series of adjacent fractured pattern elements, further wherein at least one adjacent pair of the series of adjacent fractured pattern elements is separated by a gap; and

developing the charged particle beam exposed blanket resist layer to form a patterned resist layer.

2. The method of claim 1 wherein by providing the at least one adjacent pair of the adjacent fractured pattern elements separated by the gap, the patterned photoresist layer is formed with enhanced pattern fidelity and enhanced critical dimension (CD) control.

3. The method of claim 1 wherein the substrate is employed within a microelectronic fabrication selected from the group consisting of integrated circuit microelectronic fabrications, ceramic substrate microelectronic fabrications, solar cell optoelectronic microelectronic fabrications, sensor image array optoelectronic microelectronic fabrications and display image array optoelectronic microelectronic fabrications.

4. The method of claim 1 wherein the charged particle beam method is selected from the group consisting of electron beam methods and ion beam methods.

5. The method of claim 1 wherein the blanket resist layer is formed of a positive resist material.

6. The method of claim 1 wherein the blanket resist layer is formed of a negative resist material.

7. The method of claim 1 wherein the gap has a gap width of from about 10 to about 20 nanometers.

8. The method of claim 1 wherein the gap has a length of from about 100 to about 1000 nanometers.

9. The method of claim 1 further comprising:

forming over the substrate a blanket target layer prior to forming over the substrate the blanket resist layer; and

employing the patterned resist layer as a mask for forming from the blanket target layer a patterned target layer.

10. The method of claim 1 wherein the blanket target layer is formed from a microelectronic material selected from the group consisting of microelectronic conductor materials, microelectronic semiconductor materials and microelectronic dielectric materials.

11. A method for forming a photomask comprising:

providing a transparent substrate;

forming over the transparent substrate a blanket masking layer;

forming over the blanket masking layer a blanket resist layer;

exposing, while employing a charged particle beam method susceptible to a proximity effect, the blanket resist layer to form a charged particle beam exposed blanket resist layer having formed therein a contiguous latent pattern, wherein the charged particle beam method employs when forming the contiguous latent pattern a series of adjacent fractured pattern elements, further wherein at least one adjacent pair of the series of adjacent fractured pattern elements is separated by a gap;

developing the charged particle beam exposed blanket resist layer to form a patterned resist layer; and

patterning the blanket masking layer to form a patterned masking layer while employing the patterned resist layer as a mask layer.

12. The method of claim 11 wherein by providing the at least one adjacent pair of the adjacent fractured pattern elements separated by the gap, the patterned photoresist layer is formed with enhanced pattern fidelity and enhanced critical dimension control.

13. The method of claim 11 wherein the charged particle beam method is selected from the group consisting of electron beam methods and ion beam methods.

14. The method of claim 11 wherein the blanket resist layer is formed of a positive resist material.

15. The method of claim 11 wherein the blanket resist layer is formed of a negative resist material.

16. The method of claim 11 wherein the gap has a gap width of from about 10 to about 20 nanometers.

17. The method of claim 11 wherein the gap has a length of from about 100 to about 1000 nanometers.